Michigan's Pandemic Influenza/Avian Influenza Preparedness

A Multi-Agency Response

- MDCH Director, Janet Olszewski
- DNR Director, Rebecca Humphries
- MDA Director, Mitch Irwin

- February 14, 2006
- Joint House Committee Meeting

Avian Influenza in birds

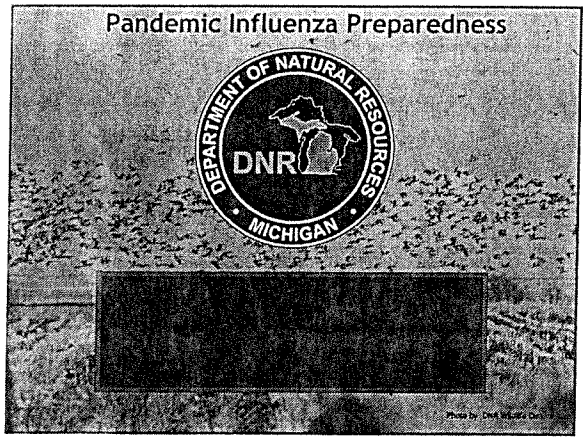
- Highly pathogenic avian influenza causes contagious illness and/or death in domestic poultry; Low pathogenic causes mild to no illness
- Vast majority of AI viruses found in birds do not represent a public health concern
- Avian influenza H5N1 Strain – first identified in 1997, Hong Kong

Avian Influenza in people

- The AI in Southeast Asia and the Middle East is the H5N1 Influenza "A" subtype
- People in these regions, who have come in close contact with sick/or dead birds infected with highly pathogenic H5N1, have contracted the illness.
- To date, we have not documented highly pathogenic H5N1 in the Western Hemisphere

Potential Scenarios for the H5N1 Strain Entering Michigan

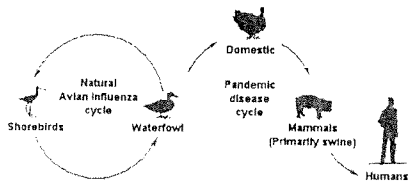
- Wildfowl die-off (DNR lead)
- Domestic Poultry die-off in MI (MDA lead)
- Patient in hospital - human international (MDCH lead)
- Pandemic onset (MDCH lead for public health issues)



Highly Pathogenic Avian Influenza H5N1

Disease that involves wildlife, livestock and humans.

Historical Cycle of Avian Influenza Viruses in Animals



Current Surveillance

- Trained field biologists
- Laboratory technicians
- Trained wildlife veterinarians
- Partnership with MSU Diagnostic Center for Population and Animal Health

Surveillance Activities

Michigan Department of Natural Resources
Wildlife Division

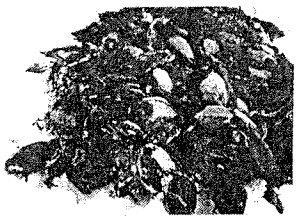
Determine whether or not highly pathogenic H5N1 virus currently exists in free-ranging wild birds in Michigan, and its geographic extent, if present.

Provide a framework for ongoing surveillance to detect introduction of highly pathogenic H5N1 virus into wild birds in the future.

Surveillance Activities

Michigan Department of Natural Resources
Wildlife Division

- Examination of wild bird carcasses from mortality events



Photos by DNR Wildlife Disease Lab

Surveillance Activities

Michigan Department of Natural Resources
Wildlife Division

- Testing live wild birds

Photos by DNR Wildlife Disease Lab

Surveillance Activities

Michigan Department of Natural Resources
Wildlife Division

- Testing hunter-killed wild birds

DNR Waterfowl Check Station
Photo by Dave Kenyon, DNR

Photo by DNR Wildlife Disease Lab

Response Activities

Michigan Department of Natural Resources
Wildlife Division

If the disease is found in wild birds:

Limit transmission from wild birds to humans

Limit transmission from wild birds to poultry

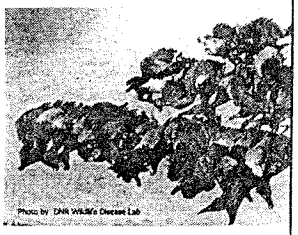


Photo by DNR Wildlife Disease Lab

MDA Avian Influenza (AI) Briefing: Prevent

Surveillance Led to Three Highly Pathogenic Findings in U.S.

- 1924 – "Fowl Plague" affected live bird markets in the Northeastern U.S.
- 1983 – destruction of 17 million birds in PA
- 2004 – quickly contained, eradicated in TX

MDA Avian Influenza (AI) Briefing: Prepare

- Established Poultry Disease Response Plan
- Exercises
- MI Emergency Veterinary Network (Vet Net)
- Education and outreach to hobby flock owners through fairs and exhibitions

MDA Avian Influenza (AI) Briefing: Respond

- Established Poultry disease protocol (emergency response manual)
- Quarantine authority
- Authority to order destruction of animals
- Mass carcass disposal plan
- Fax Blast rapid notification system to veterinarians and other key responders

MDA Avian Influenza (AI) Briefing: Recover

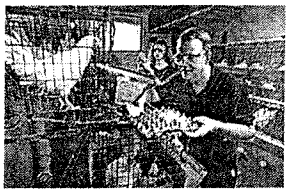
- Authority to pay indemnity
- Employee counseling services available for responders
- Business recovery planning assistance

MDA Avian Influenza (AI) Briefing
Partners in Disease Control

- MSU
  - Extension
  - Laboratory
  - College of Agriculture and Natural Resources
- USDA
  - Wildlife Services
  - Veterinary Services
- DNR
- MDCH
- Stakeholders

MDA Avian Influenza (AI) Briefing
Outreach and Education

- Industry
- Bird owners
- Veterinarians
- Public



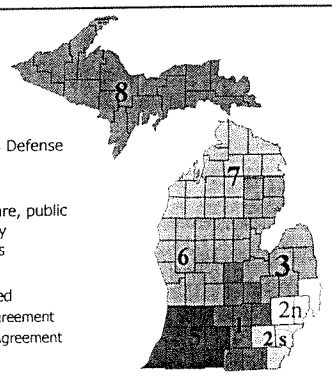
Estimated Impact of Pandemic Influenza

	United States (assuming a 15-35% attack rate)	**Michigan** (assuming a 30% attack rate)
Clinically Ill	63 to 90 Million	3.4 Million
Outpatient Visits	18 to 42 Million	2 Million
Hospitalizations	314,000 to 734,000	51,000
Deaths	89,000 to 207,000	15,000

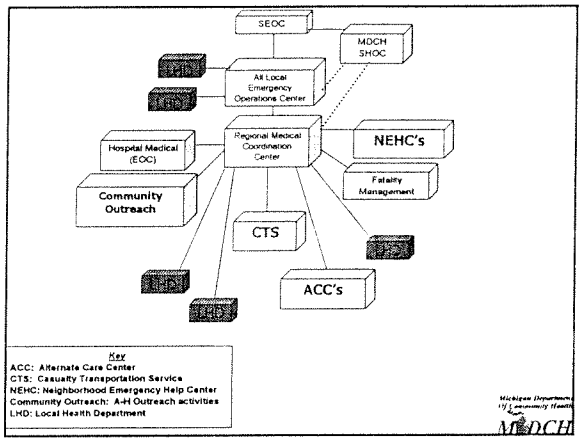
Avian/Pandemic Influenza Preparedness

MDCH Surveillance and Response

Public Health Preparedness in Michigan

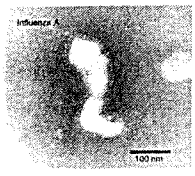


- Regional Bioterrorism Defense Network
- Coordinates health care, public health and emergency management partners
- 100% Federally funded
  - CDC Cooperative Agreement
  - HRSA Cooperative Agreement



MDCH Pandemic Influenza Plan 2005

- Updated from MDCH 2002 Plan
- Prevention or control of pandemic influenza will be met through:
  - Disease & syndromic surveillance
  - Planning and partnership development
  - Building response capacity
  - Testing response capacity



MDCH Bureau of Laboratories

Public Health Response: State and Local Preparedness

- MDCH All Hazards Plan with Pandemic component is part of the Michigan Emergency Management Plan
- State pandemic plan will be exercised this year
- Local pandemic plans are also in place and will be exercised

Actions Needed

- Enact SB 728 – Michigan Care Improvement Registry
  - Enhance the Michigan Childhood Immunization Registry by lifting the age restriction so all Michigan citizens can have access to their own immunization records

Actions Needed

- Emerging infectious diseases require the rapid designation of reportable diseases.
- Enact an amendment to the Public Health Code to authorize the Director to update the reportable disease list without rule making.

Conclusion

- Each Department conducts day to day surveillance
- Each Department responds to disease outbreaks
- We continue to improve our response plans for Avian/Pandemic Influenza
- We strive with our partners to educate the public through outreach programs

Questions?